

REMARKS

Claims 1-11 are pending after entry of this paper. Claims 1-11 have been rejected.

Claims 1-11 have been amended. No new matter has been added with these amendments. Reconsideration and withdrawal of the pending rejections in view of the above claim amendments and below remarks are respectfully requested.

Status of the Claims

The Examiner has maintained his previous rejection of claims 1-2, 4-5, 7, and 9-11 under 35 U.S.C. §102(b) for allegedly being anticipated by U.S. Patent No. 5,487,819 (“Everett”), and has maintained his previous rejection of claims 3, 6, and 8 under 35 U.S.C. §103(a) for allegedly being obvious over Everett alone, for the same grounds stated in the Office Actions of November 5, 2007 and July 11, 2007.

The Examiner has specifically construed the transitional language “consisting essentially of” recited in claim 1 to be equivalent to “comprising.” As such, the Examiner has construed instant claim 1, which recites “leaching the gold from the residue or intermediate product in an aqueous solution consisting essentially of copper (II) chloride, sodium chloride and oxygen-containing gas,” to encompass leaching in an aqueous solution having halex compounds, as taught and required by Everett. Applicants respectfully assert that claim 1 excludes halex compounds from the aqueous leach solution in the leaching step by virtue of the “consisting essentially of” language, for the reasons set forth in detail below. As such, applicants submit that claim 1 is not anticipated by Everett.

Construction of “Consisting Essentially Of” Transitional Language

MPEP §2111.03 outlines how the transitional language “consisting essentially of” is to be interpreted and examined.

The transitional phrase “consisting essentially of” limits the scope of a claim to the specified materials or steps “and those that do not materially affect the basic and novel characteristic(s)” of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original).

* * *

“A ‘consisting essentially of’ claim occupies a middle ground between closed claims that are written in ‘consisting of’ format and fully open claims that are drafted in a ‘comprising’ format.” *PPG Industries v. Guardian Industries*, 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998).

* * *

For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, “consisting essentially of” will be construed as equivalent to “comprising.” [emphasis added]

The Examiner has stated simply that “consisting essentially of” in claim 1 will be construed as “comprising” (page 3 of the Office Action). Furthermore, the Examiner has suggested that the burden is on applicants to demonstrate that the addition of halex compounds would materially affect the basic and novel characteristic of the claimed invention. As set forth in MPEP §2111.03 (in the third cited portion above), the Examiner can construe “consisting essentially of”

as "comprising" only absent a clear indication in the specification as to what the basic and novel characteristics of the aqueous leach solution are. Applicants assert that 1) the instant specification is absolutely clear as to what is a basic and novel characteristic of the aqueous leach solution of the invention; 2) the instant specification clearly teaches that halex compounds in the aqueous leach solution materially affect this basic and novel characteristic; and 3) Everett requires the presence of halex compounds in the aqueous leach solution. Applicants set forth the bases for these assertions below.

- *The Instant Specification Is Clear That Oxidation-Reduction Potential Is A Basic And Novel Characteristic*

The instant application is directed to a method for the recovery of gold, and generally describes the claimed leaching step as follows:

The gold contained in the residue or intermediate product is leached using bivalent copper and oxygen in a copper (II) chloride – sodium chloride solution in an environment where the oxidation-reduction potential is a maximum of 650 mV and the pH at least 1. (page 1, lines 7-10, emphasis added)

The instant specification further describes the advantages of the claimed method over the prior art:

Leaching takes place thus by means of bivalent copper and oxygen in conditions where the oxidation reduction potential is below 650 mV and the pH of the solution is in the range of 1 – 3. The operating range according to this method is clearly more beneficial than that mentioned in the prior art, because iron will not yet dissolve in these conditions and sulphur remains for the most part undissolved. This avoids the costs that arise from removing iron and sulphur from the solution. (page 2, line 29 – page 3, line 3, emphasis added)

The instant specification specifically reiterates the importance of maintaining the oxidation reduction potential of the leach solution at a value below 650 mV:

When the oxidation-reduction potential is held below a value of 650 mV, sulphur will not dissolve from the residue. (page 3, lines 18-20, emphasis added)

Finally, instant claim 1 positively recites the step of "keeping the oxidation-reduction potential of the suspension formed at a value below 650 mV." Thus, the instant specification is clear that the oxidation-reduction potential of the leach solution is a basic and novel characteristic.

- *The Instant Specification and Everett Clearly Teach That Halex Compounds In The Aqueous Leach Solution Materially Affect The Oxidation-Reduction Potential*

The instant specification describes the European counterpart of Everett:

EP patent 646185 [i.e., the EP counterpart of Everett] relates to copper recovery from sulphidic concentrates using chloride leaching in atmospheric conditions. Gold is leached from the leaching residue into an electrolyte that contains at least two halides, such as sodium chloride and sodium bromide. The purpose is to store oxidizing power for the bromine complex on the copper electrolysis anode, and use it to leach the gold residue. (page 2, lines 1-6, emphasis added)

Everett elaborates on this bromine complex (i.e., halide complex, or halex) and its effect on the oxidizing power (i.e., oxidation-reduction potential) of the leach solution:

It is preferred that the electrolyte includes two or more halides, and the increase in oxidation potential of the electrolyte is brought about by forming one or more halide complexes which cause further leaching of the one or more metals from the mineral as it passes through the hop zone. (col. 2, lines 54-58, emphasis added)

* * *

Halex has the capacity of storing large amounts of anodic energy (see FIG. 4), thereby raising the

oxidation potential of return electrolyte 14R. (col. 8, lines 22-24, emphasis added)

Thus, as described in the instant specification and in Everett itself, adding two or more different halides to the leach solution, forming a halide complex (i.e., halex), raises the oxidation-reduction potential of the leach solution.

Raising the oxidation-reduction potential materially affects the leaching solution, as described above, because the particular oxidation-reduction potential of less than 650 mV is required to prevent iron and sulphur from dissolving. Thus, halex compounds in the leach solution materially affects the basic and novel characteristics.

For the foregoing reason, the “consisting essentially of” language recited in claim 1 when properly construed clearly excludes a halex compound, i.e., two or more different halides, from the leaching solution.

- *Everett Requires The Presence Of Halex Compounds In The Aqueous Leach Solution*

As set forth in the October 10, 2007 Amendment and Response, Everett specifically teaches that a halex compounds are required to leach gold (see page 5 of the Amendment and, e.g., col. 10, lines 20-23 of Everett). In contrast, claim 1 specifically excludes halex compounds from the leaching solution by virtue of the “consisting essentially of” language, the proper construction of which is set forth in detail above.

Thus, Everett does not teach each and every element of claim 1, namely “leaching the gold from the residue or intermediate product in an aqueous solution consisting essentially of copper (II) chloride, sodium chloride and oxygen-containing gas.” Applicants therefore respectfully request reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. §102(b) over Everett.

Dependent Claims

The applicants have not independently addressed all of the rejections of the dependent claims. The applicants submit that for at least similar reasons as to why independent claim 1 from which all of the dependent claims 2-11 depend is believed allowable as discussed *supra*, the dependent claims are also allowable. The applicants however, reserve the right to address any individual rejections of the dependent claims and present independent bases for allowance for the dependent claims should such be necessary or appropriate.

Thus, applicants respectfully submit that the invention as recited in the claims as presented herein is allowable over the art of record, and respectfully request that the respective rejections be withdrawn.

CONCLUSION

Based on the foregoing amendments and remarks, applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application. Favorable action by the Examiner is earnestly solicited.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. **13-4500**, Order No. 4819-4722.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. **13-4500**, Order No. 4819-4722.

Respectfully submitted,
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